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Dynamic Capital Formation in Agriculture and Financial Reform

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Under the liberal economic regime, both at the national and international level, capital formation in Indian agriculture has to be dynamised and the financial sector reform has to be attuned to that requirement. In the perspective of the experience of the green revolution, investments in agriculture, both public and private, have to be diversified consistent with geo-physical conditions so that increased production, employment and income generation can alleviate rural poverty. Financial reform in the rural sector has to strengthen and expedite this process. This paper concentrates on exploring a new strategy of capital formation in agriculture and equally a new strategy of financial restructuring in the rural sector so that investment leads to sustained development of agriculture without serious damage to environment. Section I of the paper examines the aspect of capital formation and redirection of public investment; Section II analyses the nature of saving, surplus and terms of trade; Section III explains the importance of different financial institutions in agricultural capital formation; Section IV focuses on a new strategy of financial reform in the rural sector in order to facilitate capital formation; and Section V presents the conclusions.

I

ASPECTS OF CAPITAL FORMATION

Capital formation in agriculture comprises asset creation, directly and indirectly, for augmenting production. Land reclamation, preventing soil erosion, irrigation and flood control directly add to the existing stock of capital. Inputs, such as equipments, animals, fertiliser, storage, transport and communication, all these are important components of capital formation. Investments on science, technology and training are equally important segments of capital formation which improve the quality and productivity and shift the production frontier.

Investment in all these varied types of activities in agriculture can be financed by individual farmers having surplus or by the collective agencies like co-operatives, non-governmental organisations (NGOs) or by the Government. It requires an elaborate financial structure to finance these varied types of agricultural capital formation. While private investment is limited and restricted to short-term gains, public investment in medium and long-term capital formation is urgent. The earlier investment pattern of the Government has to be changed in favour of overhead type of assets. A reorganised financial structure has an important role to assist this programme.

Trend

The trend of capital formation and the growth rate of the Indian economy over the last few years show some interesting features. The growth rate of gross domestic capital for-

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mation in the country at 1980-81 prices was 4.9 per cent in 1989-90, but declined to -0.7 per cent in 1993-94. Gross fixed capital formation was 8.7 per cent and 3.4 per cent for the corresponding years. Real gross domestic capital formation as a percentage of gross domestic product was 23 in 1989-90 and 20.6 in 1993-94. Fixed capital formation, as a percentage of gross domestic product (GDP), of course, remained unaltered (20 per cent), but the stock position, both in public and private sector, has depleted. Thus the recent reform years do not show any significant positive change; rather the domestic real fixed capital formation in the public sector as a percentage of GDP has declined (Government of India, 1996).

To explain the perspective a little further, gross capital formation out of budgetary resources of the Central Government as a proportion of GDP was 6.6 per cent at 1980-81 prices and consistently declined to 5.1 per cent. Gross capital formation out of budgetary sources of the Central Government over the previous year was 24.7 per cent of GDP at 1980-81 prices but was only 6.2 per cent in 1990-91, 0.3 per cent in 1991-92, 7.1 per cent in 1992-93 and -3.6 per cent in 1995-96 (Budget Estimates). These estimates, therefore, establish the declining importance of budgetary resources of the Central Government in capital formation.

Capital formation in agriculture is not altogether different from the overall macro economic trend. Gross domestic capital formation in agriculture as a percentage of gross domestic product in agriculture at 1970-71 prices was 5.5 in 1960-61 and 10.7 per cent in 1984-85. The private sector share was 5.7 per cent in 1970-71 and 8.3 per cent in 1984-85, but the public sector share had increased from 2 per cent to 2.4 per cent for the corresponding periods, a state of near stagnation (Rath, 1989) or if we take into account other dynamic forces (such as growth of population and demand) this indicates a definite structural retrogression.

Redirection of Public Investment

Public investment of agriculture was mainly confined to major and medium irrigation, and construction of embankments. Huge investments in large scale dams, flood control and water supply for agriculture made substantial contribution to hydel power generation and foodgrain production. Agricultural growth similarly kept pace with the growth of population. But, side by side, this had produced a lot of environmental and ecological problems. In many cases traditional cropping had to be changed to low value staple. The holistic approach to development has raised the question of relative importance of increasing agricultural production by retaining the ecological balance and the technological approach of ravaging the natural resources for food production. Contemporary concern over the Tehri and Narmada and other dams are only the reflection of that great issue of development approach.

Efficiency, cost overrun, financial burden, optimal utilisation and administration are some of the basic economic issues of primary concern which any government can hardly overlook. It is estimated that as against the Rs. 60,000 crores investment in irrigation schemes from 1951 to 1990, only Rs. 300 crores have been recovered. The above conclusions are drawn on the basis of capacity utilisation, efficiency and distribution of water resources. The call is now for a greater effective investment in agriculture both in nominal terms of increasing recovery and in real terms of greater and diversified output consistent with regional diversity of ecology and resource pattern (Vaidyanathan, 1994).

It is now believed that crop-specific green revolution has to be redefined and diversification of agricultural production with the help of technological adoption is important not only for overall growth of agriculture, but also for increasing the income of the small and marginal farmers nearer the poverty level. Instead of investing huge amounts in long gestation irrigation and power projects, the scarce capital has to be invested in building diversified assets and equipments necessary for agricultural development. It will increase the capital stock as well as productiveness. The Working Group on Capital Formation and Savings in India (Government of India, 1982) and the Khusro Committee pointed out several such physical assets formation for which public investment is urgent [Reserve Bank of India (RBI), 1989].

Mono-centric investment in irrigation and mono-crop production system of green revolution has now to yield place to a diversified investment and diversified production system under the liberalised open economic regime which establishes greater linkage with the world market. The production sub-system encompasses development of different agricultural crops in different regions. It requires development of different types of land throughout the country consistent with agro-climatic zones.

The distribution sub-system requires storage, transport, wholesaling which needs large investment. The agricultural extension sub-system, input distribution sub-system, education sub-system include huge investments in training, seed, fertiliser, bio-technology, farm machinery, pesticide and electricity. Thus investment in agriculture can have greater spread resulting in higher rate of return.

Infrastructures have important forward and backward linkages. A network of roads and transport connecting every corner of the country will extend the market and break the vicious circle of backwardness. With growing agricultural production, market access is important for increasing the saving and surplus of the farmers who are often the victims of both the bumper crop and lean production. Thus infrastructure investment extends the horizon of market economy and monetisation. Similarly, storage and transport infrastructure can help a lot in generating marketed surplus of agriculture.

II

SAVING, SURPLUS AND TERMS OF TRADE

Fundamental to growth and capital formation is saving which, of late, in the Indian economy is not picking up. Compared to the corporate sector and public sector, the household sector saving is larger. In agriculture and unorganised sector savings of the households depend on agricultural output, consumption, tenurial condition, price and marketing of products as also on the spread of financial institutions and instruments. Mobilisation of savings by the financial institutions in the rural sector, discussed later, has been substantial.

At the aggregate level, agricultural production has increased substantially which makes it possible to have some amount of accumulation over and above the rate of growth of consumption of the growing population. This surplus of stock accumulates with the government and with the big farmers and traders. While the surplus with the big farmers is used for private capital formation, purchase of inputs, implements, and improvements of land, the government stock has no concrete policy for capital formation.

At the disaggregated level India has now three distinct systems of agricultural production - the green revolution pattern of production, the tenurial reform-based production system of West Bengal, and the dryland and hill area system of production. While the agricultural surplus accruing under the green revolution system goes to the big farmers, the increase of agricultural production and productivity under tenurial reform system is more evenly distributed and the saving accrues to the medium and small farmers also. Increase of agricultural productivity and output in West Bengal is an indication that an alternative way of augmenting agricultural surplus is effective. Greater public investment in minor irrigation, storage, road and other infrastructure will further accelerate the growth process (Saha and Swaminathan, 1994).

Terms of Trade

Subsidies on different items of agricultural input have an important role in generating surplus. There has been substantial public investment in agriculture in the seventies, but this has declined in the eighties and consequently private investment also. During the eighties public subsidies in agricultural inputs have increased. In this perspective a central debate has developed. On the one side, it is argued that greater input subsidies on irrigation, fertiliser, seed, oil, electricity and credit increase production at reduced cost and ensure price stability and food security for the millions of poor around the poverty line. On the other hand, causality is based on market principles. It is argued that subsidised production and pricing repressed the agricultural system and the terms of trade. Reduced subsidies and price incentives will encourage production, increase profit and capital accumulation and capital formation. With improved intersectoral terms of trade agriculture will attract investment and an in-built system of dynamism will develop (Misra and Hazell, 1996). Unfavourable terms of trade for agriculture will reduce agricultural surplus, discourage private investment and increase the intensity of rural poverty, and the favourable terms of trade will increase income, encourage investment and reduce rural poverty. Through intervention approach, in the case of the former one, the government intends to encourage production while maintaining the terms of trade favourable for agriculture and protecting the poor. The market approach, however, opens the possibility of exposing the agriculture to market forces which is imperfect at national and international levels. And with that the profitability and protection from poverty both hang in balance.

Subsidy type intervention and market-oriented incentive are alternative mechanisms to encourage agricultural production and capital formation. In both the strategies the marketable surplus is likely to increase, which may be ploughed back in agricultural development or may be spent in conspicuous consumption or may be siphoned off from agriculture and diverted to the financial market. The growing importance of non-food consumption and financial asset holding in the agricultural sector provides an explanation for the decline in capital formation in agriculture in recent years. The rationale is therefore for greater public investment in a diversified manner in the agricultural sector with more emphasis on infrastructure than on irrigation alone.

III

FINANCIAL INSTITUTIONS AND CAPITAL FORMATION

From the budgetary aspect of public capital formation we may look at the financial institutions to examine the importance of financing the private sector capital formation directly and indirectly. Indian agriculture is now in the threshold of the second phase of green revolution. A decade ago the Khusro Committee pointed out that having reached self-sufficiency in food production Indian agriculture is now poised for greater diversified technological transformation. A strong technological transformation in the different subsystems of production, processing and inputs is urgent for raising the productivity and output. Finance in the private sector should be substantially made available for such transformation according to the district and block development plans. Agriculture will experience a relative shift in investment strategy and this has to be supported by financial 'institutions to make agricultural and rural economics more viable, productive, progressive and profitable' (RBI, 1989, p. 928).

The performance of financial institutions in the rural sector has been significant. After nationalisation the commercial banks had stepped up the expansion of rural branches and increased the priority sector lending to about 50 per cent of total credit. The outstanding credit of scheduled commercial banks to agriculture, both direct and indirect, was 6.5 per cent (Rs. 362 crores) of total bank credit in 1972 which increased to 16.5 per cent in 1985, but declined to 13.6 per cent (Rs. 22,060 crores) in 1993 and 12.4 per cent in 1995. The contribution of State Bank Group was 39 per cent in 1991 and 34 per cent in 1992 and that of 20 nationalised banks was 58 per cent and 63 per cent respectively of the total advance to agriculture. Indirect loans to the farmers through primary agricultural credit societies, farmers' service societies (FSS) and Large-sized Adivasi multipurpose societies (LAMPS) constituted 12 per cent both in 1981 and in 1992. Thus bank finance to private sector capital formation picked up in the 1980s and then declined during the reform stage.[1] Again short-term direct finance is only half of the long-term loans sanctioned by the commercial banks. Another set of financial institutions, now extensively providing credit to agriculture, are the Regional Rural Banks (RRBs) and the co-operatives. Total outstanding advance sanctioned by the RRBs in 1992 was Rs. 4,188 crores.

The contribution of the co-operative sector in rural capital formation has been age-old but weak. The outstanding loans and advances of the State Land Development Banks during 1992-93 amounted to Rs. 1,906 crores and that of Primary Land Development Banks was Rs. 2,480 crores. The outstanding loans and advances of Primary Agricultural Credit Societies during the same period was Rs. 10,245 crores of which farmers with size of holdings with less than 2 hectares received Rs. 2,780 crores or 27 per cent, those with size of holdings above 2 hectares received Rs. 4,396 crores or 43 per cent and the tenant cultivators, agricultural labourers, etc., received Rs. 355 crores or 3.5 per cent (see RBI, 1996 b, pp. 95-96).

The apex body in agricultural finance, National Bank for Agriculture and Rural Development (NABARD), has become the most important agency in rural capital formation. Purposewise cumulative position of disbursement by NABARD was Rs. 18,723 crores in

March 1993, of which minor irrigation (Rs. 6,300 crores), Integrated Rural Development Programme (IRDP) (Rs. 4,939 crores) and farm mechanisation (Rs. 3,249 crores) are the most important items. The agencywise distribution of this cumulative fund is that the share of State Land Development Banks was Rs. 6,357 crores, that of scheduled commercial banks was Rs. 8,927 crores, that of the RRBs was Rs. 2,314 crores and that of the State Co-operative Banks was Rs. 945 crores. The regionwise disbursement of this fund reveals that North-Eastern Zone accounted for only 1.5 per cent, whereas Southern Zone accounted for 31 per cent, Central Zone for 24 per cent, Western Zone for 17 per cent, North Zone for 16 per cent and the Eastern Zone for 11 per cent (RBI, 1995 a, Table VII-32, p. VII-92).

The lopsided nature of the existing pattern of capital formation in agriculture becomes more clear from the regional distribution of scheduled commercial banks' finance to farmers. As stated above, commercial banks have extensively set up branches in the rural sector. But the regional distribution of short-term and term loans of scheduled commercial banks indicates that the eastern region comprising Bihar, Orissa and West Bengal accounted for less than half of that of the central region and the southern region. As for the share of farmers in the total term loans of the scheduled commercial banks in 1991, farmers with land holdings upto 2.5 hectares have 18 per cent, those with land holdings 2.5 to 5 hectares have 20 per cent and those with holdings above 5 hectares have 62 per cent.

From this pattern of financing of capital formation in agriculture by these financial agencies some important conclusions can be drawn which will serve as a guidance for appropriate policy formulation for restructuring the financial agencies in the rural sector. (i) Financial institutions other than the co-operatives are unevenly distributed throughout the country. Even with huge expansion of rural branches they could not serve all the regions to the required extent. (ii) There is also the concentration of credit on the upper and better-off segment of farmers while the poorer and larger segment at the lower rung of the ladder is on the marginal receiver. (iii) In spite of so many agencies extending credit to agriculture, diversified agricultural development has not yet developed. (iv) The major segment of investment, as stated above, was confined to only specific type of long-term capital formation, i.e., big irrigation to the neglect of many short-term investments which are urgent for increasing the production of food and non-food items as well as for raising the productivity. (v) In all types of institutional finance overdues and default of repayment have been extensive. (vi) Due to target-oriented finance, requisite capital formation is often neglected. (vii) Asset formation under the compulsive programmes like IRDP, Indira Rozgar Yojana, etc., are not substantially useful for long-term development. (viii) The continuous intervention has made the RRBs and rural branches of commercial banks weak and inefficient.

IV

NEEDED FINANCIAL REFORM

Indian agriculture has to undergo a radical change on three counts: (a) for ensuring food security of the growing population and for greater employment and income generation, (b) for export earning, and (c) for a decentralised development to reduce rural poverty. A diversified production plan in agriculture in order to meet these urgent needs is the first priority. Once this rejuvenated production plan takes on comprising different sub-sectors, credit requirements will be larger.

The needed reforms in the financial sector has to be consistent with this set of requirements. The problem with the rural finance is that every commission/committee set up to look into the problems of agricultural finance was prone to suggest a structure of financial institutions without prior thought about the main question of production plan and without suggesting measures to make the existing financial institutions viable. New institutions are built and the old ones are suggested to be abolished. Thus the Rural Credit Survey Committee (RBI, 1954) suggested the extension of the State Bank of India in the rural areas and strengthening of the co-operatives. The Rural Credit Review Committee (RBI, 1969), the National Commission on Agriculture (Government of India, 1976) and the Working Group on Rural Banks (Government of India, 1975) all suggested new credit institutions for providing integrated credit to the farmers and the new generation of Regional Rural Banks came into being. The Khusro Committee (RBI, 1989) has suggested the abolition of RRBs and recommended the setting up of a National Co-operative Bank. Meanwhile, NABARD has come up to refinance the co-operative banks, RRBs and land development banks.

There is thus a plethora of financial institutions in the rural sector but the capital formation is not picking up to any significant extent and the old rots and problems remain with the basement level organisation including co-operative credit societies and RRBs. In order to avoid the embarrassment, the Narasimham Committee (RBI, 1991) has suggested the roll-back of institutions merging the RRBs with the sponsor banks and rationalising the structure of the commercial banks in a mechanical way.[2]

The new financial structure for diversified agricultural production plan, as now envisaged under the market-oriented programme of development, should be based on the consolidation of institutions around the gains of co-operatives and RRBs. Rationalisation of financial structure requires the merger of rural branches of commercial banks, the RRBs and the co-operative banks together so that credit is easily available and the commercial character of capital market is developed. Instead of multiple weak agencies, there should be a strong and combined agency of these three segments - rural branches of commercial banks, RRBs and the co-operative banks (all the weak financial feeder agencies under NABARD). This integrated body will be strong enough to follow the test of standard banking rules. More important, this revitalised financial agency will be strong enough to meet the growing requirements of rapid capital formation under the new perception of diversified agricultural development. Under this new liberalised agriculture, extensive plans for capital formation would come up comprising irrigation, infrastructure, processing, storage and new technological adoption. The principle of the financial reform in the rural sector is not to bypass the ills of the existing system but to consolidate its gains so that the emerging open system of production, consumption and export can be met in a market system and not around a statist dependency which breeds many ills and inefficiency among the agricultural financial system.

The State Bank structure is not capable of combining the virtues of rural banking with the commercial banking technique. The State Bank of India (SBI) has belied the expectation of the RCS Committee long ago and the first nationalised commercial bank did not take up the challenge of agricultural capital formation. At the same time co-operatives remained as weak as ever. Availability, informality, efficiency and innovating enterprise are the fundamental merits which the new consolidated merger of RRBs, co-operative banks and rural branches of commercial banks are supposed to combine. Lapses of these requirements of a financial institution will result in handing over the rural finance to the moneylenders and indigenous bankers again.

Subsidies, concessions and statist intervention are the set of principles around which the financial structure has been built since Independence. Co-operatives, commercial banks, RRBs, NABARD and the RBI itself, all have been tuned with the principle of paternalism which has, step by step, accumulated vices of corruption, overdues, bureaucratic bungling and political interference. The objective of capital accumulation and capital formation has been swamped by accumulated inefficiency. Lack of enterprise and efficiency has been covered up by the equity of credit flow, and the individual enterprise has been benumbed by the virtues of philanthropy misplaced to the financial institutions.

Agricultural capital formation in our structurally backward economy depends partly on state initiative and largely on individual enterprise. State finance has to be widely dispersed to irrigation, infrastructure, technology adoption and research. Both state (public) and private capital formation must pay due attention to the preservation of natural resources like forestry and environment just as they should be ready to pay the price of scarce capital.

V

CONCLUSIONS

Indian agriculture is now poised for a radical transformation. Having achieved self-sufficiency in food production at aggregate level, agriculture is now required to diversify the field of production for income generation, employment expansion, poverty alleviation and export promotion. This requires a vast expansion of production of different types of crops, food and non-food items, in the plains, hills, and dryland regions of the country. In order to enable this diversified production, both public and private investments have to be redirected and the financial institutions have to be redesigned to supply the growing need of capital and to reduce the legacy of overdues, inefficiency, corruption and undue administrative intervention.

Public investments in agriculture, long confined largely to high-tech irrigation projects, have now to be diversified in high value short gestation projects. Infrastructure, technology, energy, marketing and communication sub-systems are the important areas which call for extensive public investment for diversified agricultural production. Similarly, housing and human settlement is another area for public investment.

Saving in the agricultural sector is largely dissipated due to lack of opportunities of market facilities and unfavourable terms of trade. Given the existing tenurial and production structure, agricultural surplus is largely enjoyed by the better-off farmers. The gains from green revolution have been mono-centric to specific crops and to the land owning classes of farmers. Investment has now to be diversified in different regions, crops and activities so that surplus accrues to the poorer segments of rural communities, and employment and income are generated in widely dispersed regions of hills and plains.

Elaborate financial organisation has been built over the years. But this has left gaps with respect to regions, segments of farmers and types of activities. The financial system has been built and unbuilt on the one principle of credit flow at low cost to the co-operatives, banks, RRBs and individuals. One way credit flow from the financial institutions has led to accumulation of vices like overdues, corruption and dependence and intervention.

Instead of abolishing the RRBs,[3] we propose to redesign the rural financial structure around the RRBs. Rural branches of commercial banks, co-operative banks and RRBs have to be combined together in order to strengthen the rural financial structure and to provide the appropriate and adequate financial support to private capital formation in a diversified system of production. Production and investment will set the limit of credit flow and not the other way round.

NOTES

1. Estimates have been made on the basis of RBI (1995 b), *Annual Report, 1994-95*, Appendix Table IV. 8, p. 160; EPW Research Foundation (1996, Table 9, p. 789); and RBI (1994, a, b), *Report on Currency and Finance, 1992-93, Vol. I: Economic Review*, Statements 46, and 51 to 53 and *Vol. II: Statistical Statements*, Tables 34, 39-40.

2. The All India Rural Credit Review Committee (RBI of India, 1969, p. 578) recommended the setting up of a special agency like the Small Farmers' Development Agency. The National Commission on Agriculture, 1976 (Government of India, 1976, p. 570) proposed a single source of institutional credit for meeting all the requirements of the farmers. The RRBs were ultimately set up on the recommendations of the Working Group on Rural Banks under the chairmanship of M. Narasimham in 1975 (Government of India, 1975).

3. The Narasimham Committee on the Financial System (RBI, 1991) recommended, like the Khusro Committee, the abolition of the RRBs.

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